IN THE SPECIFICATION

Please amend the paragraphs of the specification as follows:

On page 1, please replace the paragraph starting on line 5 with the following paragraph:

This application is a continuation application of Application Serial No. 09/158,665, filed September 22, 1998, entitled "Method for Robust Handoff in Wireless Communication System," now U.S. Patent No. 6,360,100, issued March 19, 2002 and currently assigned to the assignee of the present application.

On page 3, please replace the paragraph starting on line 1 with the following paragraph:

A mobile station need only establish communication through one base station at a time in order to communicate with a device at the other end of the communications link (i.e., make a "call"). However, as a mobile station moves, the mobile station and the base station may lose the ability to communicate over the radio link. For example, if the mobile station moves outside the range of the base station or if an obstruction comes between the mobile station and the base station, the communications between the mobile and base stations will be interrupted. Therefore, the placement of base stations is planned such that there is an overlap between the coverage areas of each base station. This overlap ensures that a mobile station can contact at least one base station in every geographic point intended to be covered by the system. This is important because if the mobile loses contact with all ~~bases~~ base stations for any substantial amount of time, the call is "dropped". Once a call is dropped, the call must be reestablished by the mobile station redialing the call.

On page 5, please replace the paragraph starting on line 23 with the following paragraph:

Figure 6 is an illustration of the flow of messages between the mobile station, [[the]] base station X, [[the]] base station Y, and the MSC in accordance with the disclosed method and apparatus.

On page 6, please replace the paragraph starting on line 30 with the following paragraph:

As shown in Figure 5, the mobile stations 200 (such as cellular telephones) each move about within a system of base stations 300. Each base station is in communication with an MSC 400. When a call to or from a mobile station 200 is established, the mobile station communicates with the base station 300. The base station relays the "traffic" to the MSC 400. For the purpose of this description, the traffic is that portion of the information that is sent from the mobile station 200 to the base station and which is intended for the device at the other end of the call. The MSC 400 in turn typically sends the traffic to the device at the other end of the call through a land based system, such as the public switched telephone network (PSTN) or over the internet. However, it should be noted that [[it]] in an alternative embodiment of the disclosed method and apparatus, the MSC 400 may transmit the traffic via an air link, such as a satellite uplink, line of sight microwave link, or other such radio connection. Therefore, it should be understood that there is no limitation to the manner in which the traffic is communicated from the MSC to another device which is at the other end of the call.

On page 7, please replace the paragraph starting on line 11 with the following paragraph:

In one embodiment of the disclosed method and apparatus, the base stations 300 are arranged to transmit information into three sectors 501, 502, 503. In Figure 5, one mobile station [[200a]] 200A is in a sector [[501a]] 501A of a first base station [[300a]] 300A, and is concurrently in a sector [[502b]] 502B of a second base station [[300b]] 300B. Therefore, the mobile station [[200a]] 200A will receive a pilot signal from both the base station [[300a]] 300A and the base station [[300b]] 300B. If the mobile station [[200a]] 200A was initially in the sector [[501a]] 501A of the base station [[300a]] 300A, but sufficiently far away from the base station [[300b]] 300B that the pilot signal being transmitted from base station [[300b]] 300B was not above a predetermined threshold, referred to hereafter as the "Active Pilot ~~Threshold",~~ Threshold," then the following process would occur in accordance with the disclosed method and apparatus.

On page 7, please replace the paragraph starting on line 22 with the following paragraph:

When the pilot transmitted by the base station [[300b]] 300B is first received by the mobile station [[200a]] 200A at a power level that is above the Active Pilot Threshold, then the mobile station [[200a]] 200A will generate a Pilot Strength Measurement Message (PSMM). Referring to Figure 2, the pilots from both the base station [[300a]] 300A and the base station [[300b]] 300B will be received by the front end 201 in the mobile station [[200a]] 200A. The signals will preferably be digitized in the front end 201 and the digital representation of the signals coupled to the signal processor 203. The signal processor 203 will determine the signal strength of the pilot signals in conventional fashion. The values of the signal strength of each pilot will then be coupled the general purpose processor 205 to determine whether each pilot is above the Active Pilot Threshold. In addition, a determination will be made as to whether each pilot that is currently being received at a signal strength above the Active Pilot Threshold is currently in the Active Set 209 stored in memory 207. If a pilot is being received at a signal level that is above the Active Pilot Threshold, but is not in the Active Set, then a PSMM will be generated by the general purpose processor 205.

On page 8, please replace the paragraph starting on line 3 with the following paragraph:

The PSMM will be transmitted to the MSC 400 over the connection 501 between the base stations and the MSC 400 (see Figure 5). The PSMM will identify each of the pilots that are currently being received at a signal level that is greater than the Active Pilot Threshold.

On page 8, please replace the paragraph starting on line 29 with the following paragraph:

Once the mobile station [[200a]] 200A transmits the PSMM to the base station [[300a]] 300A, the base station [[300a]] 300A relays the PSMM to the MSC 400. Referring to Figure 3, the base station 300 receives the PSMM on either the reverse traffic channel or a control channel that is time multiplexed, code multiplexed, or otherwise distinguished from the traffic and pilot channels. The PSMM is received by the base station via the front end 301. The PSMM is digitized in the front end 301 and provided to the signal processor 303 for demodulation. The signal processor 303 demodulates the signal and provides the content of the signal to the general purpose processor 305 for transmission to the MSC 400 via the communication interface 308.

On page 9, please replace the paragraph starting on line 4 with the following paragraph:

Referring to Figure 4, the MSC 400 receives the content of the PSMM from the base station via the communication interface 401 within the MSC 400. The content of the PSMM is then coupled to the general purpose processor 403. The general purpose processor 403 within the MSC 400 generates an HDM. The HDM is a message that indicates which base stations 300 will be transmitting a forward traffic channel to the mobile station [[200a]] 200A. Since the MSC 400 preferably has the ability to select one or more base stations to transmit traffic, the HDM is essential to inform the mobile station [[200a]] 200A which of the base stations 300 identified by the pilots in the Active Set will truly be transmitting traffic.

On page 9, please replace the paragraph starting on line 14 with the following paragraph:

The HDM is coupled back to the communication interface 401 within the MSC 400 for transmission to each of the base stations 300 indicated in the PSMM. The HDM is received within each of the base stations 300 by the communication interface 308. The HDM is then coupled to the general purpose processor 305 within each base station 300. Each general purpose processor 305 couples the HDM to the mobile station [[200a]] 200A that sent the PSMM. The mobile station [[200a]] 200A receives the HDM from at least the base station [[300b]] 300B, even if the signals transmitted on the forward traffic channel by base station [[300a]] 300A are no longer strong enough to be received by the mobile station [[200a]] 200A.

On page 9, please replace the paragraph starting on line 23 with the following paragraph:

It should be understood that even though the disclosed method and apparatus is described as using a PSMM and HDM (terms that are well known in the industry), only the functions that are described herein are relevant to the disclosed method and apparatus. Therefore, if an industry standard PSMM or HDM has other functions, formats, or characteristics which are not referenced in this disclosure, then they are not to be considered as part of the disclosed method and apparatus. In effect, any message format may be used to indicate to the base stations 300 which pilots have been received at levels above the Active Pilot Threshold. Likewise, any message format may be used to indicate to the mobile station [[200a]] 200A which base stations will be transmitting traffic to that mobile station [[200a]] 200A.

On page 9, please replace the paragraph starting on line 34 with the following paragraph:

Figure 6 is an illustration of the flow of messages between the mobile station [[200a]] 200A, the base station [[300a]] 300A, the base station [[300b]] 300B, and the MSC 400 in accordance with the disclosed method and apparatus. As shown in Figure 6, a traffic channel is initially established between the mobile station [[200a]] 200A and the base station [[300a]] 300A. When the mobile station [[200a]] 200A detects the pilot from base station [[300a]] 300A which is above the Active Pilot Threshold, the mobile station [[200a]] 200A transmits a PSMM to the base station [[300a]] 300A. The PSMM indicates that the mobile station [[200a]] 200A is currently receiving the pilots from both the base station [[300a]] 300A and the base station [[300b]] 300B at levels that are greater than the Active Pilot Threshold. This is indicated in Figure 6 by the "X" and "Y" in parenthesis following the "PSMM". The PSMM is relayed by the base station [[300a]] 300A to the MSC 400. The MSC 400 communicates with the base station [[300b]] 300B to request resources be allocated by base station [[300b]] 300B to support a traffic channel to and from the mobile station [[200a]] 200A. The MSC 400 then generates and transmits to both the base stations ~~300a, 300b~~ 300A, 300B an HDM indicating that both the base stations ~~300a, 300b~~ 300A, 300B will be establishing traffic channels to the mobile station. The mobile station [[200a]] 200A then generates and transmits a handoff completion message HDC. The HDC is received by the base station [[300a]] 300A and relayed to the MSC 400. The HDC indicates to the MSC 400 that the mobile has successfully received the HDM.

On page 10, please replace the paragraph starting on line 19 with the following paragraph:

Figure 7 is a flow chart that indicates the procedure performed by the mobile station in accordance with the disclosed method and apparatus. In accordance with the method shown in Figure 7, the mobile station [[200a]] 200A determines whether any pilots are being received at levels above the Active Pilot Threshold (STEP 701). If any pilots are being received at levels above the Active Pilot Threshold, then the mobile station [[200a]] 200A determines whether each such pilot is in the Active Set 209 (STEP 703). If at least one of these pilots is not in the Active Set 209, then a PSMM is generated and transmitted to the base stations with which the

mobile station currently has an established traffic channel (i.e., those base stations 300 associated with pilots that are currently in the Active Set) (STEP 705).

On page 10, please replace the paragraph starting on line 30 with the following paragraph:

Next, the mobile station [[200a]] 200A places each of the pilots that were received at levels above the Active Pilot Threshold in the Active Set 209 (STEP 707). After placing all of these pilots in the Active Set, the mobile station [[200a]] 200A then monitors the transmissions from each of the base stations associated with pilots in the Active Set in an attempt to receive an HDM (STEP 709). Once an HDM is received, the mobile station [[200a]] 200A generates and transmits an HCM indicating that the handoff has been completed (STEP 711). The mobile station [[200a]] 200A then begins to transmit and receive over the traffic channels to and from each of the base stations indicated in the HDM (STEP 713).

On page 11, please replace the paragraph starting on line 4 with the following paragraph:

Figure 8 is a flow chart that indicates the procedure performed by an MSC in accordance with the disclosed method and apparatus. In accordance with the method shown in Figure 8, the MSC 400 awaits receipt of a PSMM from the mobile station [[200a]] 200A (STEP 801). Upon receipt of the PSMM, the MSC 400 requests that each of the base stations associated with a pilot identified in the PSMM allocate resources to the mobile station [[200a]] 200A (STEP 803). Alternatively, the MSC 400 only contacts those base station that do not already have a traffic channel to and from the base station [[200a]] 200A. In accordance with one method, upon receiving confirmation that the resources are allocated, the MSC 400 generates and transmits an HDM that indicates which base stations have resources currently allocated to the base station [[200a]] 200A (STEP 805). Alternatively, the HDM only identifies those base stations that have allocated resources in response to the PSMM, and not those that already had resources allocated previous to the receipt of the PSMM. The HDM is preferably transmitted to each of the base stations indicated by the PSMM. In an alternative method, the HDM is transmitted only to those base stations that are identified in the HDM (i.e., those base stations that have successfully

allocated resources to the base station [[200a]] 200A). In one method, the HDM is only transmitted to base stations that were recently added to the Active Set.

On page 11, please replace the paragraph starting on line 23 with the following paragraph:

The MSC 400 then waits for an HCM to be received (STEP 807). The HCM indicates that the handoff is complete. The HCM may be received from the mobile station [[200a]] 200A through all, or only through some, of the base stations that are currently in the Active Set 209.